

AMENDMENT TO THE CLAIMS

Claims 1-9. (Cancelled)

Claim 10. (New) An isolated nucleic acid molecule encoding a chimeric protein comprising in the N-terminal to C-terminal direction:

a binding domain of an antibody against PSMA comprising a (GGSGS)₃ linker,

a CD8 hinge in which at least one of the cysteine residues has been mutated, and

a zeta signaling chain of the T cell receptor.

Claim 11. (New) The isolated nucleic acid molecule of claim 10, wherein said binding domain of an antibody against PMSA comprises the binding domain of the 3D8 antibody.

Claim 12. (New) The isolated nucleic acid molecule of claim 10, wherein said binding domain of an antibody against PMSA comprises the binding domain of the 4D4 antibody.

Claim 13. (New) The isolated nucleic acid molecule of claim 10, wherein said

binding domain of an antibody against PMSA comprises the binding domain of the 3E11 antibody.

Claim 14. (New) The isolated nucleic acid molecule of claim 10, wherein said nucleic acid molecule is operatively linked to an expression control sequence.

Claim 15. (New) A vector comprising the nucleic acid molecule of claim 14.

Claim 16. (New) A host cell comprising the nucleic acid molecule of claim 15.

Claim 17. (New) The host cell of claim 16, wherein said host cell is a T cell.

Claim 18. (New) The host cell of claim 16, wherein said host cell is an NK cell.

Claim 29. (New) The host cell of claim 16, wherein said host cell is autologous.

Claim 20. (New) A method of treating a proliferative disease, said method comprising administering to a patient the host cell of claim 16.

Claim 21. (New) The method of claim 20, wherein said patient has a cancer expressing the PSMA antigen.